

## Combating Complacency in HIV Prevention

In the United States, complacency about the need for HIV prevention may be among the strongest barriers communities face as they plan to meet the next century's prevention needs. The great success that many people, but not all, have had with new highly active antiretroviral therapies (HAART, also known as drug "cocktails") and the resulting decline in the number of newly reported AIDS cases and deaths are indeed good news. The underlying reality, however, is that the HIV epidemic in our country is far from over. This is true not only for the nation, but for the continuing number of HIV-infected individuals who now must face years – perhaps a lifetime – of multiple daily medications, possible unpleasant or severe side effects, and great expense associated with the medicines needed to suppress HIV and prevent opportunistic infections.

The success of HAART is good news for the people living longer, better lives because of it, but the availability of treatment may lull people into believing that preventing HIV infection is no longer important. This complacency about the need for prevention adds a new dimension of complexity for both program planners and individuals at risk.

- While the number of AIDS cases is declining, the number of people *living* with HIV infection is growing. This increased prevalence of HIV in the population means that even more prevention efforts are needed, not fewer. For individuals at risk, increased prevalence means that each risk behavior carries an increased risk for infection. This makes the danger of relaxing preventive behaviors greater than ever.
- Past prevention efforts have resulted in behavior change for many individuals and have helped slow the epidemic overall. However, many studies find that high-risk behaviors, especially unprotected sex, are continuing at far too high a rate. This is true even for some people who have been counseled and tested for HIV, including those found to be infected.
- The long-term effectiveness of HAART is unknown. Further, HIV may develop resistance to these drugs. The powerful treatments are complicated and involve taking large numbers of pills. Even the most motivated patients may forget to take all their medications or skip doses. Some patients have been known to take "drug holidays," completely stopping their medications for a number of days or weeks. These drug treatments are less effective when treatment schedules are not followed. Diversions from the prescribed treatment regimen increase the possibility of drug resistance developing, which would greatly narrow future treatment options for those infected with a drug-resistant strain of HIV. And, if the development of drug-resistance is coupled with a relaxation in preventive behaviors, resistant strains could be transmitted to others and spread widely.

- Research among gay and bisexual men suggests that some individuals are less concerned about becoming infected than in the past and may be inclined to take more risks. This may be equally true in other groups at risk who might believe they no longer need to use condoms because protease inhibitors are so effective in treating HIV disease. The truth is, despite medical advances, HIV remains a serious and usually fatal disease that requires complex, costly, and difficult treatment regimens. These treatments don't work for everyone. Sometimes when they do work, they have unpleasant or intolerable side effects. Some people can't take them because the interaction with their other drugs causes serious problems. Still others find it extremely difficult to maintain the drug treatment schedules. As we continue working to develop better treatment options, we must not lose sight of the fact that preventing HIV infection in the first place precludes the need for people to follow these difficult regimens.

## **The Challenge of Monitoring the HIV/AIDS Epidemic**

The "treatment effect" on trends in the AIDS epidemic not only increases our need for combating complacency, but means that we have never been closer to losing our ability to monitor the epidemic.

- Until recently, AIDS cases provided a reliable picture of trends in the HIV epidemic. Before highly effective treatments were available, researchers could take into account the time between HIV infection and progression to AIDS and estimate where and how many new infections were occurring based on observed cases of disease. Today, trends in AIDS cases and deaths may provide a valuable measure of groups for whom highly effective treatment is not available or has not succeeded. However, they no longer tell us enough about where and how many new infections are occurring – information critical for addressing the increasing need for prevention and treatment services. To allow the U.S. to target programs and resources most effectively, we must be able to keep pace with where the epidemic is going. This means we need to improve our ability to track early HIV infections, *before* they progress to AIDS.

## **Pay Attention to Prevention! It works...**

Sustained, comprehensive prevention efforts begun in the 1980s have had a substantial impact on slowing the HIV/AIDS epidemic in our country. While it is difficult to measure prevention – or how many thousands of infections did not occur as a result of efforts to date – we know the epidemic was growing at rate of over 80% each year in the mid-1980s and has now stabilized. While the occurrence of approximately 40,000 new infections annually is deeply troubling, we have made tremendous progress. We also have more scientific evidence than ever before on which prevention programs are most effective. There is no question that prevention works and remains the best and most cost-effective approach for bringing the HIV/AIDS epidemic under control and saving lives.

*HIV prevention programs have been proven effective.*

- Many studies indicate that prevention programs can contribute to changes in personal behavior that reduce risks of infection, and these changes are sustained over time. A 1997 scientific consensus conference sponsored by the National Institutes of Health that reviewed existing data on the effectiveness of HIV behavioral interventions concluded that "behavioral interventions to reduce risk for HIV/AIDS are effective and should be disseminated widely."
- Comprehensive school-based HIV and sex education programs have been shown to delay the initiation of sexual intercourse, reduce the frequency of intercourse, reduce the number of sex partners, or increase the use of condoms or other contraceptives.
- Efforts to reduce risks of injection drug users through policy changes also have been evaluated and found to be very effective. For example, both New York and Connecticut reported significant reductions in the sharing of drug injection equipment after implementation of programs and policies that increased access to sterile injection equipment.
- Perinatal prevention programs that identify and treat pregnant women who are HIV infected have shown dramatic success in reducing HIV transmission to their babies.
- Screening the blood supply for HIV and heat-treating blood products for the treatment of hemophilia have nearly eliminated HIV transmission through these early transmission routes.
- Postexposure prophylaxis for health care workers has shown some success in reducing HIV transmission rates among those with occupational exposure to HIV-infected blood.
- Numerous HIV prevention programs have been shown to be cost-effective when compared against the resources required to treat and deliver HIV medical care to a person over the remaining years of their life. With the rising costs of lifetime treatment of HIV, effective prevention has become even more cost effective. New CDC estimates find that if only 1,255 infections are prevented each year, CDC's federally funded HIV prevention efforts in the United States are cost effective. If only 3,995 infections are prevented, our nation's investment in HIV prevention has actually saved money.

*Comprehensive HIV prevention programs work best.*

- People with HIV risk behaviors need an array of prevention messages, skills, and support to help them reduce sexual and drug-related risks. Drug injectors, for example, not only need strategies to help them stop using drugs or sharing needles, but also need to learn ways to protect themselves from sexual transmission if their partner has ever injected drugs and may have shared needles.

- Substance use is a major problem in this country, and the intersection of substance use and sexual HIV transmission cannot be overlooked. Ideally, everyone who abuses any drug (including alcohol) should be offered counseling and treatment to help them stop using drugs and prevent HIV infection. HIV prevention interventions for the vast majority of substance users who are *not* in treatment also must address the sexual risks that are common among people who use drugs, including "crack" cocaine, marijuana, and alcohol.
- Each and every generation of young people needs comprehensive, sustained health information and interventions that help them develop life-long skills for avoiding behaviors that could lead to HIV infection. Such comprehensive programs should include the involvement of parents as well as educators. The most effective programs start at an early age and are designed to encourage the adoption of healthy behaviors, such as exercising and eating a healthy diet, and to prevent the initiation of unhealthy ones, such as drug use, excessive alcohol consumption, smoking, and premature sexual activity, *before* they start.
- Scientific studies show that treatment of other sexually transmitted diseases can greatly reduce the risk of transmitting and acquiring HIV.

*The many dimensions of prevention provide multiple opportunities for intervention.*

- *Primary HIV prevention* means keeping people from becoming infected with HIV in the first place. Interventions must focus not only on uninfected populations – there also is a major role for preventing further infections by focusing on infected individuals and helping them develop skills for reducing the risk of infecting others.
- *Secondary HIV prevention* means keeping people who already are HIV-infected safe and healthy by helping them avoid opportunistic infections and stopping the infection from progressing to AIDS.
- In all prevention efforts, there is a growing need to address the link between HIV treatment and prevention. In some cases, such as preventing perinatal transmission to infants by providing antiretroviral drugs to the mother, treatment *is* prevention. We also know that the treatment of other STDs can greatly reduce a person's risk for sexually acquired HIV infection. And, scientists even now are exploring the possibility that combination drug therapies may reduce infectivity. With the lines between prevention and treatment beginning to fade, ongoing services for people who are HIV positive must balance medical advances with the behavioral and social support needed to preserve their quality of life and prevent the spread of infection.
- We must maintain a focus on behavioral strategies. Even a vaccine doesn't stop a disease unless people use it – and in the case of HIV, a vaccine is unlikely to confer 100% lifelong immunity. Because no medical advance can succeed on its own, people must adapt their behaviors to work in tandem with it. To do this, they need several things:

- *Access* to prevention services and new medical treatments. For example, pregnant women who may not know they are infected with HIV cannot reduce the risk of transmission to their children unless they first get prenatal care that includes routine HIV counseling and voluntary testing. Those found to be infected then must have access to antiretroviral drugs.
- *Assistance in developing skills* to use new medical treatments. HAART, for example, involves complex treatment regimens and may require the development of compliance-related skills. For example, people may need to learn how to deal with side effects, what drug interactions might occur, how to lessen the risk of developing drug resistance, or how to cope with complicated schedules.
- *Support and encouragement* from family, friends, care providers, and the community at large will help people make and sustain behavioral changes in their lives.

Today, more than ever, we must recognize that medical advances do not negate the need for preventing disease—in fact, the availability of newer and better treatments often *increases* the need for prevention. How well we continue our work to develop integrated approaches to prevention and treatment may well define the future course of the HIV pandemic.